

Multiple-Drug Addiction in New York City in a Selected Population Group

HANS ABELES, M.D., RALPH PLEW, M.D., IRVING LAUDEUTSCHER, M.D., LL.B.,
and HARVEY M. ROSENTHAL, M.B.A.

ADDICTION to opium and its derivatives has been a well-known problem in New York City for many years. Recently, concern has been increasing about the simultaneous use by an addict of several addictive and habituating drugs—either exclusively or as supplements to opium derivatives. And this concern deepens when one of the nonopiates used is a barbiturate since, during the withdrawal stage, barbiturate addicts may present life-threatening seizures which must be immediately recognized and properly treated (1-3).

According to a recently introduced requirement in section 11.05 of the New York City Health Code, "Reports of Cases of Narcotic Addiction as Prescribed by Section 11.03 shall also be made by a person in charge of a Correctional Institution, Social Agency, or any other person who has knowledge of or gives care to narcotic addicts." (Section 11.03 is entitled: "Diseases and Conditions Reportable." Narcotic addiction, habitual and compulsive use of a narcotic drug as found in section 3301 of the Public Health Law of the State of New York are considered reportable conditions.) In

compliance with the new requirement, the New York City Department of Correction has initiated a special procedure for reporting addicts admitted to its institutions. This procedure has enabled us for the first time to collect and analyze certain data on drug addiction which illustrate the extent of multiple-drug use by addicts admitted to correctional institutions in New York City.

Source of Study Data

All persons committed to institutions of the New York City Department of Correction are interviewed and examined by a physician upon admission. This procedure includes an investigation of drug addiction. When a history of drug addiction is elicited, the physician completes a special form, listing the drugs used, the amount of each drug taken, the duration of addiction, and the date of the last dose taken. The completed forms are forwarded weekly for tabulation to the central office of the medical division of the Department of Correction. We consider that the information given by the inmate as to the types of drugs taken is largely reliable because he realizes that the treatment he will receive is predicated in large measure upon the information which he gives as to the drugs he uses. As to the duration of addiction, the addict's statement cannot be verified, but no reason is apparent that would prompt him to deviate widely from the truth on this question. Lesser reliance can be placed on statements by the addict regarding dosages, especially of

The authors are with the Department of Correction, City of New York. Dr. Abeles is medical director, Dr. Plew is deputy medical director, and Dr. Laudeutscher is medical supervisor. Mr. Rosenthal is chief statistician for sociological research.

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heroin, because of the marked variations in actual heroin content in the "bags" which he obtains. Often the amounts of drugs taken are expressed in terms of the amount of money that the addict expends upon them daily. Not infrequently, when asked how much of a drug he takes daily, his reply may be, "As much as I can get a hold of." Statements regarding dosage of drugs were therefore not analyzed.

Three institutions participated in the study: the Women's House of Detention, which is the only institution in the city of New York for the detention of females; the Brooklyn House of Detention, which serves primarily male adolescents aged 16-20 from the boroughs of Brooklyn and Manhattan; and the Manhattan House of Detention, which for detention purposes receives persons primarily from Manhattan. The other detention institutions for males in New York City were not included in the study because they receive a significant number of interinstitutional transfers, and their inclusion in the study would have led to a number of duplicate reports. Data from the three institutions participating were analyzed over a 2-month period, July 1 to August 31, 1965. During this time, 9,132 inmates were received, 1,239 of whom were classified as addicts and studied. A limit of 2 months was arbitrarily set to reduce to an insignificant number confrontations with re-admitted addicts.

Characteristics of Addicts in Detention

Multiple-drug use. Table 1 records the multiplicity of drugs used by the detention groups studied and shows the distribution of multiple-drug use by sex. Of all the addicts investigated, 624, or approximately 50 percent, were users of more than one drug. The number of addicts who stated that they used three or more drugs was remarkably high among women; 95 (20 percent) of all female addicts claimed to be users of more than three drugs. Also, 18 women in this group of 95 stated that they were users of four or more drugs. No male addict admitted the use of more than three drugs.

Most common drugs and combinations. Table

2 shows the drugs most commonly used singly and the most commonly used drug combinations. The overwhelming majority of addicts, 93 percent (1,154 persons), used heroin; barbiturates were used by 40 percent (490 persons); amphetamine-type drugs by 10 percent (122 persons); cocaine by 5 percent (59 persons); glutethimide by slightly more than 4 percent (53 persons). So few inmates mentioned the use of other drugs and other drug combinations that data on these drugs are not included in this table. Marihuana was mentioned by an insignificant number of inmates, probably because by the time a person who has used marihuana comes into conflict with the law, he has usually given it up for more potent drugs.

The number of addicted persons using a single drug other than heroin was small. Of the 607 single-drug users, 559 used heroin, 14 used barbiturates, the remaining 34 used glutethimide, cocaine, marihuana, glue, tranquilizers, or cough mixtures.

The use of amphetamine-type drugs was much more common among female than male drug users; 100, or 20 percent, of the drug-dependent women used amphetamine-like drugs in contrast to only 22 (3 percent) of the drug-dependent men. The overwhelming majority of female users of an amphetamine-type drug combined it with heroin or with heroin and barbiturates.

The data on the types of drugs used and their multiplicity were further analyzed by age and

Table 1. Sex distribution of users of single drugs and of multiple drugs among addicts admitted to selected New York City correction institutions, July 1-August 31, 1965

Sex of addict	Number of addicts using—			Total
	1 drug	2 drugs	3 or more drugs	
Male.....	357	388	6	751
Female.....	250	135	95	480
Total....	607	523	101	1,231

¹ For 8 male addicts, information was not available as to the multiplicity of drugs used; therefore the total number of addicts amounts to only 1,231 cases instead of 1,239.

Table 2. Numbers of 1-drug, 2-drug, and 3-drug users among addicts admitted to selected New York City detention institutions July 1–August 31, 1965, by most commonly used drugs and drug combinations

Drugs and combinations	Heroin	Barbiturate	Amphetamine-type drug	Cocaine	Glutethimide
Heroin.....	559	416	55	26	16
Barbiturate.....	—	14	6	0	1
Amphetamine-type drug.....	—	—	0	0	4
Cocaine.....	—	—	—	5	0
Glutethimide.....	—	—	—	—	6
Heroin-barbiturate.....	X	X	31	15	7
Heroin-amphetamine type drug.....	X	—	X	10	16
Heroin-cocaine.....	X	—	—	X	3

NOTE: (—) appropriate number listed above. X—not applicable.

sex of the users. Of 150 male addicts in the age group 16–20 years, 102 (69 percent) used heroin alone. Above the age of 20, only 37 percent of the male addicts used heroin alone. Use of heroin with barbiturates or use of both with a third drug was the most frequently found type of drug addiction in male inmates above the age of 20. In the group 21–29 years, 57.9 percent showed this type of addiction; in the group 30–39 years, 57.2 percent; and in the group 40–49 years, 55.8 percent. Among the female addicts above the age of 20, approximately 49 percent in each decade studied used heroin alone. Heroin and barbiturates together or with additional drugs were used by 26 percent of the female addicts in the 21–29 age group and by the same percentage in the 30–39 age group.

Sex distribution of addicts. Table 3 indicates the sex distribution of all persons admitted to the selected institutions during the study period and presents the total number of addicts by sex. Among the women, there were 480 addicts (37.6 percent) and among the men, 759 (9.7 percent). During the first few weeks of our investigation, the heroin supply was relatively low in New York City. When heroin on the illicit market is plentiful, we find higher percentages of addicts in the adult male institutional population—often as high as 20 percent. At all times, however, in our study, the percentage of addicts in the female detention population exceeded the percentage in the male detention population. This observation does

not permit any conclusion as to the distribution of female and male addicts in the general population because of the selected clientele in detention institutions and particularly because of the high percentage of prostitutes among female inmates.

Ethnic and sex distribution. Table 4 shows the ethnic and sex distribution of the drug-dependent inmates. In the interpretation of these data, it must be noted that we are dealing with a very selective group, that is, drug-dependent persons who were apprehended by law-enforcement agencies. The preponderance of Negro addicts in the groups studied does not necessarily reflect the ethnic distribution of addicts in the general population.

Age and sex distribution. Table 5 demonstrates the distribution of addicts in the selected detention institutions by age group and sex. The figures for males are weighted toward the 16 to 20 age group (adolescents) because one

Table 3. Number and sex of addicts admitted to selected New York City detention institutions July 1–August 31, 1965

Sex	Number of admissions	Addicts	
		Number	Percent
Male.....	7, 855	759	9. 7
Female.....	1, 277	480	37. 6
Total.....	9, 132	1, 239	13. 6

of the three institutions studied, the Brooklyn House of Detention, serves adolescent males from two large boroughs. Thus, the adolescent group made a large contribution to the total addiction figures derived from the three institutions.

Figures for the female addicts are based on the total female inmate population, adolescent and adult. The percentage of adolescents in this population is far lower than in the selected male group studied. Even if the entire male detention population of New York City had been included in the study, however, the percentage of male adolescents who were addicts would have exceeded appreciably the percentage of female adolescents who were addicts. Possibly the reason for this sex difference in addiction in a detention population is that the female adolescent addict does not come into conflict with the law as often as the male adolescent addict.

The percentages of adolescent male and female addicts found in this institutionalized group cannot be extrapolated outside of the selected population on the assumption that the same difference agewise between male and female addicts will necessarily prevail. Among persons in detention, however, the bulk of female addicts is in general younger than the bulk of male addicts. In the female group studied, 92.5 percent of the addicts were under 40 years of age. In the male group, in spite of the weighting by adolescents of the Brooklyn House of Detention, only 82.2 percent of the addicts were under 40. Again, the special population under study may account for this age difference.

Duration of addiction. Table 6 reflects the duration of drug addiction as stated by addicts upon admission to the three detention institutions studied. It shows that 30.7 percent of the addicts had been drug users for from 5 to 9 years and 33.6 percent for 10 years or longer.

Table 4. Distribution by ethnic group and sex of addicts admitted to selected New York City detention institutions July 1–August 31, 1965

Ethnic group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
White.....	366	48.2	150	31.3	516	41.6
Negro.....	318	41.9	322	67.1	640	51.6
Other.....	3	.4	0	0	3	.3
Not stated.....	72	9.5	8	1.6	80	6.5
Total.....	759	100.0	480	100.0	1,239	100.0

Table 5. Distribution by age group and sex of addicts admitted to selected New York City detention institutions July 1–August 31, 1965

Age group (years)	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
16–20.....	147	19.4	18	3.8	165	13.3
21–29.....	301	39.7	231	48.1	532	42.9
30–39.....	175	23.1	195	40.6	370	29.9
40–49.....	52	6.8	25	5.2	77	6.2
50 and over.....	11	1.4	3	.6	14	1.1
Not given.....	73	9.6	8	1.7	81	6.6
Total.....	759	100.0	480	100.0	1,239	100.0

Table 6. Duration of drug addiction among drug users admitted to selected New York City detention institutions July 1–August 31, 1965, by age group of user

Duration of drug use (years)	16–20 years		21–29 years		30–39 years		40–49 years		Number 50 years and over ¹	Not stated		Total	
	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent		Number	Per-cent	Number	Per-cent
Under 1-----	49	29.7	46	8.7	14	3.8	0	-----	0	6	7.4	115	9.3
1 to 4-----	93	56.4	160	30.1	43	11.6	7	9.1	1	13	16.1	317	25.6
5 to 9-----	20	12.1	232	43.6	89	24.1	7	9.1	2	30	37.0	380	30.7
10 years and over	3	1.8	89	16.7	219	59.2	63	81.8	11	32	39.5	417	33.6
Not stated-----	-----	-----	5	.9	5	1.3	-----	-----	-----	-----	-----	10	.8
Total-----	165	100.0	532	100.0	370	100.0	77	100.0	14	81	100.0	1,239	100.0

¹ Percentage not given because numbers are so small.

Further analysis of the data revealed that the figures regarding duration of addiction in the 16 to 20 age group referred almost entirely to the male addicts canvassed. In the 21 to 29 age group, more male than female addicts had been drug users for 5 to 9 years. This observation lends support to our impression that male addicts generally started to use drugs at an earlier age than female addicts.

Discussion

Inmates with a history of drug addiction comprise a markedly significant segment of the total population in the detention institutions of the New York City Department of Correction. Particularly among female inmates, the proportion of addicts is notable.

Since apprehended drug addicts are deprived of their drug supply, they will exhibit the symptoms of drug withdrawal shortly after admission to a detention institution, or upon admission. In the past such withdrawal symptoms, being predicated solely on the withdrawal of heroin and other opium derivatives, usually presented no serious diagnostic or treatment problems. Years of study and experience have made the medical profession knowledgeable concerning such withdrawal symptoms, and effective therapy for detoxification of the addict has been elaborated. Extensive use, however, of multiple addictive drugs, a comparatively recent practice, presents new problems in treatment. While almost all addicts still take heroin or another opium derivative, many of them supplement this addiction with one or more other

drugs, most frequently including a barbiturate. As a result, we have observed a variety of bizarre syndromes during the various stages of narcotic drug withdrawal. Of particular importance are the withdrawal symptoms in barbiturate users. Whether the addicts have been taking a barbiturate with opium derivatives or alone, among the other symptoms and signs that they frequently exhibit are life-threatening convulsive seizures. These attacks require immediate recognition and specific therapy. An awareness of the signs and symptoms of barbiturate withdrawal may be particularly important in caring for a pregnant addict, for the newborn baby may also exhibit withdrawal signs.

When testing for a reversion to heroin during the rehabilitation treatment of an addict, the widespread use of barbiturates makes it incumbent upon the physician to check also for barbiturate intake. The new experimental approach to heroin addiction control, the methadone maintenance treatment, likewise requires management of any associated barbiturate addiction and an awareness of the possibility of stealthy use of other drugs by the addict.

Summary

Among 7,855 men admitted to three detention institutions of the Department of Correction of New York City during the 2-month period July 1–August 31, 1965, a total of 759 (9.7 percent) were drug users. Among 1,277 women admitted, representing all female detention cases in New York City during the same period, a total of 480 (37.6 percent) were drug users. Of the

1,231 drug users of both sexes for whom adequate information was available, 523 used two drugs and 101 used three or more drugs. Thus, approximately 50 percent of all drug users were addicted to more than one drug.

Heroin addiction was found in 93 percent of the drug-using inmates. The most common second drug used was a barbiturate; 490 (40 percent) of the drug users took barbiturates. Combined heroin and barbiturate addiction was more often found in male drug users above the age of 20 than in female drug users of the same age group. Approximately 20 percent of the female drug-dependent inmates used amphetamine-type drugs compared with only 3 percent of the male drug-dependent inmates.

Addicts to multiple drugs, particularly when one of the drugs is a barbiturate, may present various syndromes during drug withdrawal. In the barbiturate user, these withdrawal symptoms may include life-threatening convulsive seizures which require immediate and appropriate treatment.

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Good Samaritan Laws

Thirty-two States have enacted Good Samaritan laws to provide that physicians, nurses, and others who render emergency aid shall not be held liable for ordinary negligence, but only for gross negligence or willful misconduct. Marcus L. Plant, University of Michigan professor of law, discussed these laws, as well as the legitimacy of the fears they are intended to allay, at an Ann Arbor conference. He cited an American Medical Association law department survey on the incidence of professional liability which revealed that of 3,000 claims made against 14,000 physicians, only 6 or 8 resulted from a Good Samaritan situation. In none of these cases was a suit filed against a physician.

Despite this, the fear of malpractice suits makes some qualified professional persons reluctant to help the injured. A recent survey by the Law Medicine Research Institute of Boston University indicated that only 27 percent of answering physicians would respond to the call, "Is there a doctor in the house?" Of those remaining who would respond only "if no other doctor did," 35 percent said fear of a malpractice suit would hold them back initially.

Plant noted that the fears of physicians, legally under no duty to render aid simply because they are physicians, and nurses have not been relieved by the Good Samaritan laws which, existing only in some States, offer protection in varying degrees. Ten statutes cover physicians licensed under the laws of "this State," eight include nurses as well, and nine cover "any persons." Three statutes extend immunity only at the scene of "any emergency," while seven of these also apply at the "scene of an accident."